

Application No. 09/382,382
First Supplemental Information Disclosure Statement

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VIA FACSIMILE TRANSMISSION - OFFICIAL
To: Fax Number 703-872-9306
December 5, 2004

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

In re application of: Harley Kent Heinrich et al.

Examiner: William L. Bangachon

Serial Number: 09/382,382

Art Unit: 2635

Filed: 08/24/99

For: "Radio Frequency Identification System With Write Broadcast Capability"
(Attorney Docket No. YO995-218)

Mail Stop Non-Fee Amendment
Commissioner for Patents
Alexandria, VA 22313


First Supplemental Information Disclosure Statement

The accompanying IDS Document Listing (sheet one of one), provides a list of documents which may be relevant to the subject application.

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that, on the date shown below, this First Supplemental Information Statement consisting of three pages, an IDS Listing of one page, a copy of an Official Action dated 08/10/1995 (of five pages), claims 1-15 (four pages) acted upon by the Official Action, and the three reference patents relied upon in the Official Action, are being facsimile transmitted to the U.S. Patent and Trademark Office.

Date: December 5, 2004


John H. Sherman, Reg. No. 16,909

Received 12/09/04
in Central Fax

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REMARKS

As provided in 37 CFR 1.97(g) and (h), the filing of this statement should not be construed as a representation that a search has been made, or that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 CFR 1.56(b). Moreover, this statement does not constitute an admission by the Applicant or the Applicant's Attorney that the information provided herein is necessarily prior art to the Applicant's invention.

It is respectfully requested that the documents cited in this Information Disclosure Statement (IDS) be considered by the Examiner, and made of record.

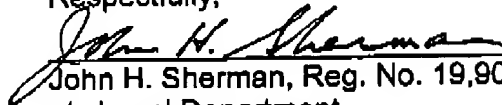
Copies of the documents as listed on enclosed sheet one of the attached IDS Document Listing, are enclosed. These enclosed documents are references of USP 5,550,547 which was relied upon in the Official Action of 11/07/2001, Paper #4 herein, in rejecting the claims presently pending herein (before being removed per 35 USC 103c). Applicant submitted an IDS on September 29, 2003 presenting European counterparts to the two US patents 5,550,547 and 5,673,037 removed under 35 USC 103c, the European patents both having been published on March 20, 1996, prior to the effective filing date of August 9, 1996 of the presently pending claims herein.

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Please charge any underpayments related to this paper or credit any excess to Deposit
Account No. 14-1190.

Respectfully,


John H. Sherman, Reg. No. 19,909
c/o Legal Department
Intermec Technologies Corporation
550 Second Street, SE
Cedar Rapids, IA 52401

- Enclosures: (1) Information Disclosure Statement Listing (Sheet One of One)
- (2) Copy of Official Action of Five Pages from Application No.
08/304,340, now US Patent 5,550,547, and Copy of Claims 1-15
(Pages 14-17) Acted Upon in the Official Action
- (3) Copies of the Three Reference Patents Relied Upon in the Official
Action, and as Listed on the Information Disclosure Listing of
Enclosure (1)



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/304,340 09/12/94 CHAN

22M2/0910

LOUIS J PERCELLO
IBM CORPORATION
INTELLECTUAL PROPERTY LAW DEPARTMENT
PO BOX 218
YORKTOWN HEIGHTS NY 10598

S 0004108 EXAMINER	
SOTOMAYOR, J	
ART UNIT	PAPER NUMBER 5

2201
DATE MAILED:

08/10/95

DUE 11/10/95

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.
Failure to respond within this period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice of Draftman's Patent Drawing Review, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1448. | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 5. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-15 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☒ Claims 14 & 15 are allowed.
4. ☒ Claims 1-13 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.65 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1939 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

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Part III DETAILED ACTION

Information Disclosure Statement

1. The Information Disclosure Statement filed September 12th, 1994 has been entered and considered. An initialled copy of the PTO-1449 by the Examiner is attached.

Drawings

2. The drawings filed September 12th, 1994 have been objected to by the Draftsperson as noted on the attached PTO-948.

Specification

3. Applicants are required to identify the U.S. Patent application to C. Cesar et al referenced on page 6 of the specification.

Claim Rejections - 35 USC § 112

4. Claims 2-13 are rejected under 35 U.S.C. § 112, fourth paragraph, as being of improper dependent form for failing to further limit the subject matter of a previous claim.

The claims are rejected for being quasi-method or operational in nature in that they do not positively recite structure that would further limit the structure in the claims upon which they depend. The claims merely recite how the structure is operated without setting forth structure that would further define and limit the structure in the claims upon which they depend. Typically structure claims are further limited by the phrase "A tag, as in claim 1, further comprising means for ...", etc. It is apparent that the further limiting of the

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"algorithm" or logic is what is being claimed and not the "tag structure" per se.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1 and 2 are rejected under 35 U.S.C. § 102(a) and/or (e) as being anticipated by Nishimura et al ('346) or Smith ('572) or Huber ('315).

As best understood, the claims are considered to be met by Nishimura et al ('346) or Smith ('572) or Huber ('315) who disclose a radio frequency tag for communicating with a base station including, inter alia, an antenna and tag circuit, a tag memory, a tag logic circuit and a tag algorithm for setting the tag in a ready state and ID state.

Allowable Subject Matter

7. Claims 14 and 15 are allowable over the prior art of record.

Conclusion

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8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication should be directed to Examiner John B. Sotomayor at telephone number (703) 308-0478.

IF BUSY, please call 703-308-0478 and leave a message.

**JOHN B. SOTOMAYOR
PRIMARY EXAMINER
GROUP 2200**

FORM PTO-892		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		SERIAL NO. 08/304340	GROUP ART UNIT 2201	ATTACHMENT TO PAPER NO.	5
NOTICE OF REFERENCES CITED				APPLICANT(S) Shun S. Chan et al			
U.S. PATENT DOCUMENTS							
*		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	A	5245348	9/1993	Nishimura et al	342	42	
	B	6262979	10/1993	Nysen	342	50	
	C	5280435	1/1994	Weissaupt et al	384	514	
	D	5302954	4/1994	Brooks et al	342	44	
	E	5347263	9/1994	Carroll et al	340	572	
	F	5355137	10/1994	Schurmann	342	42	
	G	5365551	11/1994	Snodgrass et al	375	1	
	H	5410315	4/1995	Huber	342	42	
	I	5434572	7/1995	Smith	342	44	
	J						
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	S						
FOREIGN PATENT DOCUMENTS							
*		DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
	T						
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
	U						
EXAMINER JOHN B. SOTOMAYOR				DATE July 24, 1995		Form 892BMR2107	
* A copy of this reference is not being furnished with this office action. See Manual of Patent Examining Procedure, section 707.05(a)							

CLAIMS**CLAIMS**

We claim:

1. A radio frequency tag for communicating with a base station, comprising:
 - a. an antenna and tag radio frequency circuit for sending and receiving radio frequency signals to and from the base station;
 - b. a tag memory for storing tag data;
 - c. a tag logic circuit connected to the tag radio frequency circuit and the tag memory, the tag logic circuit having a tag state register that indicates the tag is in a state that is one of the states including READY, ID, and Data Exchange, the tag logic further having a state counter and a random number generator; and
 - d. a tag algorithm, run by the tag logic, that places the tag in the READY state by setting the state register to READY when the tag is powered and places the tag in the ID state by setting the state register to ID when the base station sends the tag an identification command.
2. A tag, as in claim 1, where the identification command is a Group_select command and the tag transmits a command response back to the base station while the tag is in the ID state.
3. A tag, as in claim 2, where the command response is tag identification information.
4. A tag, as in claim 3, where the tag receives a Fail command from the base station that causes the tag algorithm to increase a state counter value in the state counter if:
 - a. the state counter has a value not equal to a predetermined value, or
 - b. the state counter has a value equal to the predetermined value and the random number generator has a given value,

whereby the tag stops transmitting the tag identification information while the state counter value is not equal to the predetermined value and the tag algorithm causes the random number generator to generate a new random value.

5. A tag, as in claim 4, where the tag receives a Resend command from the base station that causes the tag algorithm to decrease the state counter value.

6. A tag, as in claim 5, where the tag starts sending the tag identification information when the state counter value is equal to a predetermined value.

7. A tag, as in claim 6, where the base station sends the tag a READ command and the tag algorithm places the tag in the Data_Exchange state whereby the base station can sent one or more application commands to the tag by identifying the tag with the identification information sent to the base station.

8. A tag, as in claim 5, where the Fail command causes the tag algorithm to decrease the state counter value and the Resend command causes the tag algorithm to increase the state counter value.

9. A tag, as in claim 5, where the predetermined value is zero and the given value is zero.

10. A tag, as in claim 5, where the algorithm increases the state counter by one for each Fail command sent and decrements the state counter by one for each Resend command sent whereby the base station has read the identification information from every tag in a field of tags when the number of Fail and Resend commands are equal.

11. A tag, as in claim 5, where the tag algorithm resets the value in the state counter to the predetermined value when the tag receives a Group_select command from the base station.

12. A tag, as in claim 1, where the tag algorithm places the tag in the READY state by resetting the state register to READY when the tag receives a Group_unselect command from the base station.

13. A tag, as in claim 1, where the tag is placed in the Data_Exchange state by setting the state register to Data_Exchange when the tag receives a READ command from the base station whereby the tag sends back an acknowledgement.

14. A system for reading information from a plurality of radio frequency tags that are in the field of a radio frequency signal sent by a base station, comprising:

i. a tag, further comprising:

a. an antenna and tag radio frequency circuit for sending and receiving radio frequency signals to and from the base station;

b. a tag memory for storing tag data;

c. a tag logic circuit connected to the tag radio frequency circuit and the tag memory, the tag logic circuit having a tag state register that indicates the tag is in a state that is one of the states including READY, ID, and Data Exchange, the tag logic further having a state counter and a random number generator; and

d. a tag algorithm, run by the tag logic;

ii. a base station that is able to transmit information commands to the field of tags, the information commands including a Group_select, a Group_unselect, a Fail, and a Resend command,

a. the Group_select command causing the tag algorithm to place one or more selected tags in the ID state by causing each selected tag algorithm to set its respective state register to ID and reset its respective state counter to a predetermined value,

b. the Group_unselect command causing the tag algorithm to place one or more unselected tags in the ID state to the READY state;

c. the Fail command being generated by the base station when more than one tag sends tag identification information to the base station simultaneously, the Fail command causing the algorithm of each selected tag to increment its respective state counter if:

1) the state counter has a value not equal to a predetermined value, or

2) the state counter has a value equal to the predetermined value and the random number generator has a given value,

d) the Resend command sent by the base station when tag identification information is sent back to the base station in response to a READ command by a single tag in the field, the Resend command causing the state counter of all the tags in the field to decrement,

whereby the base station can identify an individual tag in the field of tags, and cause the identified tag to go into a Data_Exchange state where the base station can access information from the tag memory.

15. A method, for reading a radio frequency identification tag in a radio frequency field of a plurality of tags comprising the steps of:

a. sending a group_select command from a base station that places one or more selected tags in the field in a ID state;

- b. sending identification information from all the selected tags to the base station;
- c. sending a fail command from the base station if more than one tag sends identification information simultaneously;
- d. increasing a state counter value in the state counter of one or more selected tags if:
 - 1) the state counter has a value not equal to a predetermined value, or
 - 2) the state counter has a value equal to the predetermined value and the random number generator has a given value, the tag stopping transmission of the tag identification information while the state counter value is not equal to the predetermined value and the tag algorithm causing the random number generator to generate a new random value;
- e. sending identification information a next time from all the selected tags to the base station, the selected tags having a state counter value equal to the predetermined value;
- f. repeating steps c - e until a sole tag is sending identification information to the base station;
- g. issuing a READ command to the sole tag using the identification information of the sole tag; and
- h. placing the sole tag in a Data_exchange state where the base station can access data from the sole tag memory by using application commands.